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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/369,424	08/06/1999	TORU FUJITA	Q55331	6768

7590 07/02/2004  
SUGHRUE MION ZINN MACPEAK & SEAS PLLC  
2100 PENNSYLVANIA AVENUE N W  
WASHINGTON, DC 200373202

EXAMINER

BRINICH, STEPHEN M

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
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EXAMINER
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ART UNIT	PAPER
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18

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Commissioner for Patents

# Office Action Summary

Application No.

09/369,424

Applicant(s)

FUJITA, TORU

Examiner

Stephen M Brinich

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2004.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6, 10-15 and 19-46 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 35-43 is/are allowed.  
6) ☒ Claim(s) 1, 3, 4, 10, 12, 13, 19, 23-34 and 44-46 is/are rejected.  
7) ☒ Claim(s) 2, 5, 6, 11, 14, 15 and 20-22 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

Art Unit: 2624

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 10, 19, & 44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koike in view of Mitsuse et al and further in view of Kuwata et al or Satou et al.

Re claims 1, 10, 19, & 44-46, Koike discloses (column 13, lines 6-21) an image processing arrangement in which a tone correction specific to the gamma characteristic of an output device is applied to an image signal. After this correction, the signal is subject to halftone processing to generate halftone data.

Re claims 1, 10, 19, & 44-46, Koike does not teach or suggest tone correction based on gamma characteristic information having a higher resolution value than the original input resolution.

Art Unit: 2624

Mitsuse et al discloses (column 10, line 67 - column 11, line 6) the obtaining of higher resolution gamma characteristic information and the use of this higher resolution information to create a more accurate conversion table. The use of such higher resolution gamma characteristic information to provide Koike with more accurate conversion (and resulting more accurate image rendition) would be an expedient obvious to one of ordinary skill in the art.

Further re claims 1, 10, 19, & 44-46, Koike does not teach or suggest tone correction with respect to rewritten tone correction data.

Kuwata et al (column 20, lines 3-10) or Satou et al (column 11, line 49 - column 12, line 6) each discloses the correction of color tone with respect to rewritten calibration data. The use of such rewriting to update the tone correction data (inherently requiring the storage of this information in a rewritable data storage) of Koike for the purpose of improving the accuracy of this data in light of user experience or new tone measurements would be an expedient obvious to one of ordinary skill in the art.

3. Claims 1, 10, 19, 23, 25-27, 29-31, 33-34, & 44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Art Unit: 2624

Yamakawa in view of Mitsuse et al and further in view of Kuwata et al or Satou et al.

Re claims 1, 10, 19, & 44-46,, Yamakawa discloses (column 4, lines 28-34) an image processing arrangement in which a tone correction specific to the gamma characteristic of an output device is applied to an image signal. After this correction, the signal is subject to halftone processing to generate halftone data.

Re claims 1, 10, 19, & 44-46, Yamakawa does not teach or suggest tone correction based on gamma characteristic information having a higher resolution value than the original input resolution.

Mitsuse et al discloses (column 10, line 67 - column 11, line 6) the obtaining of higher resolution gamma characteristic information and the use of this higher resolution information to create a more accurate conversion table. The use of such higher resolution gamma characteristic information to provide Yamakawa with more accurate conversion (and resulting more accurate image rendition) would be an expedient obvious to one of ordinary skill in the art.

Further re claims 1, 10, 19, & 44-46, Yamakawa does not teach or suggest the newly recited element of tone correction with respect to rewritten tone correction data.

Art Unit: 2624

Kuwata et al. (column 20, lines 3-10) or Satou et al. (column 11, line 49 - column 12, line 6) each discloses the correction of color tone with respect to rewritten calibration data. The use of such rewriting to update the tone correction data (inherently requiring the storage of this information in a rewritable data storage) of Yamakawa for the purpose of improving the accuracy of this data in light of user experience or new tone measurements would be an expedient obvious to one of ordinary skill in the art.

Re claims 23, 25-27, 29-31, & 33-34, Yamakawa discloses (Figure 2, item 209) input (with a pre-gamma-correction actual gamma) CMYK image data that is converted to output (with a post-gamma-correction idealized gamma) CMYK image data via a deterministic calculation.

4. Claims 3-4, 12-13, 24, 28, & 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koike or Yamakawa in view of Mitsuse et al and further in view of Kuwata et al or Satou et al as applied to claims 1, 10, & 19 above, and further in view of Applicant's admitted Prior Art.

Re claims 3-4, & 12-13, Koike or Yamakawa does not describe the scanning of a test image to calculate the gamma characteristic information of an output device. The use of such test scanning is well known to one of ordinary skill in the art

Art Unit: 2624

as indicated for example by Applicant's description of JA 8-69210A (page 1, lines 10-24). The use of such a test scanning to provide the gamma characteristic data used in Koike or Yamakawa in order to compensate for variations caused by temperature, humidity, etc. (as noted by Applicant at page 1, lines 10-16) would be an expedient obvious to one of ordinary skill in the art.

5. Claims 24, 28, & 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamakawa in view of Mitsuse et al and further in view of Kuwata et al or Satou et al as applied to claims 1, 10, & 19 above, and further in view of Applicant's admitted Prior Art.

Re claims 24, 28, & 32, Yamakawa does not disclose that corrected errors in gamma characteristic arise from atmospheric conditions or aging. The fact that gamma characteristic errors may result from these factors is well known as described by Applicant (page 1, lines 10-11). The use of such a test scanning to provide the gamma characteristic data used in Yamakawa in order to compensate for variations caused by temperature, humidity, etc. (as noted by Applicant at page 1, lines 10-16) would be an expedient obvious to one of ordinary skill in the art.



Art Unit: 2624

***Allowable Subject Matter***

6. Claims 35-43 are allowed.

7. Claims 2, 5-6, 11, 14-15, & 20-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Re claims 2, 11, 20, & 35, 38, & 41 (and dependent claims 21-22 & 42-43), the art of record does not teach or suggest the recited variation between the number of tone levels in input and output tone level data in conjunction with the recited gamma correction arrangement.

Re claims 5, 14, 36, & 39, the art of record does not teach or suggest the recited variation between the bit number assigned to a pixel in a test printing operation and a usual printing operation in conjunction with the recited gamma correction arrangement.

Re claims 6, 15, 37, & 40, the art of record does not teach or suggest the recited variation between the screen frequency assigned to a test printing operation and a usual printing operation in conjunction with the recited gamma correction arrangement.

Art Unit: 2624

***Response to Arguments***

8. Applicant's arguments, see Paper # 14: page 18, lines 1-11, filed 09 April 2004, with respect to the rejection(s) of claim(s) 1, 10, & 19 (and dependent claims 3-4, 12-13, & 23-34) under 35 USC §103 have been fully considered and are persuasive.

Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Mitsuse et al.

***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Brinich at 703-305-4390. The examiner can normally be reached on weekdays 7:00-4:30, alternate Fridays off.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center 2600 Customer Service center at 703-306-0377.


If attempts to contact the examiner and the Customer Service Center are unsuccessful, supervisor David Moore can be contacted at 703-308-7452.

Application/Control Number: 09/369,424

Page 9

Art Unit: 2624

Faxes pertaining to this application should be directed to the Tech Center 2600 official fax number, which is 703-872-9306.

  
Stephen M Brinich  
Examiner  
Art Unit 2624

smb

June 24, 2004